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Title: Nucleic Acid Molecules Encoding GLUTX and Uses Thereof Filing Date: 10/18/01 Attorney Docket No. MPI1998-021DV3(M) Applicants: Louis A. Tartaglia and Xun Weng Figure 3A of 4

	Majoriese
M X X G F O K - G S	<u></u> Majority 30
M C F S K L G K	
	V T G T L V L A Majority
40 50	60
G E P P Q	K H L T G T L V L S glut2 K K V T T P L I F A glut3 Q R V T G T L V L A glut4 A I A glut5 K D W S C S I L V A GlutX
VLIAALGS-FOYGYNLGVIN	A P O K V I E A F Y Majority
70 80	90
V F T A V I. G F - F Q Y G Y S L G V I N I S I A T I G S - F Q F G Y N T G V I N V F S A V I. G S - L Q F G Y N I G V I N T L I A A F G S S F O Y G Y N V A A V II S I. A G A F G S S F L Y G Y N L S V V N	A P E A I I K D - F glut3 A P O K V I E Q S Y glut4 S P A L L M O O E Y glut5
	<u></u> Majority
100 110	120
G R M L G A I P M V R H A T N T S R D N	
G R M L G A I P M V R H A T N T S R D N	
G R M L G A I P M V R H A T N T S R D N	Glut1
G R M L G A I P M V R H A T N T S R D N N	Glut1
G R M L G A I P M V R H A T N T S R D N N	G N R L G R K X A Majority G N R L G R K X A Majority G N R L G R K X A Majority G N R L G R K X A Majority G G G G G G G G G
G R M L G A I P M V R H A T N T S R D N N	G N R L G R K X A Majority G N R L G R M R L G R M R L G R M R L G R M R L G R M R L G R M R L G R M R L G R M R L G R M R L G R

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MLVNNVLAIAGGLLM	GLAKXAXSFEM	L I L G Majority
190	200	210
M L V V N V L S I A G N L L M M L I V I: L L A I A G G C L M M L V N N V I. A V L G G S L M L I. F N N I F S I V P A I L M L I. A N N G F A I S A A I. L M	G	I I G glut4 I I S glut5
RFIIGLYCGLSSGVY	PMYVGEISPTA	LRGA Majority
220	230	240
RFIIGVYCGLTTGFVRAITGLYCGLSSGLVRLIIGLFCGLCTGFYRFLIGAYSGLTSGLVRLLVGICAGVSSNVVRRFIMGIDGGVALSVL	PMYVSEVCPTAPMYIGEISPTAPMYVGEIAPTHPMYLGELAEKN	LRGA glut2 LRGA glut3 IRGA glut4 LRGA glut5
LGTLNOLGIVIGILI	AQVLGLDSLLG	N E S L Majority
250	260	270
L G T L H Q L G I V V G I L I I G T L H Q L A I V T G I L I F G T L N Q L G I V I G I L V L G T I N Q L A I V I G I L I L G V V P O L F I T V G I L V I G Q V T A I F I C I G V F T	SQVIGLOFILC AQIFGLKVILC AQVIGLESLLC AQIFGLRNLL	NDEL glut2 TEDL glut3 TASL glut4 ANVDG glut5
WPLLLGLTGVPALLO	LLLPFCPESI	RYLL Majority
280	290	300
WPLLLSVIFIPALLQ WPLLLGISGVAAIIQ WPLLLGFTILPAIIQ WPLLLGTVLPALLQ WPLLLGLTVLPALLQ WPILLGLTGVPAAIQ WPILLGLTGVPAVVO	FFULLLCPESICAALPFCPESILVLLPFCPESI	PRYLY glut2 PRFLL glut3 PRYLY glut4 PRYLL glut5
INKNEEARAKKALQR	LRGTADVSQE	V A E M K Majority
310	320	330
IKLGKVEEAKKSLKK INRKEEEKAKEILOR IIQNLEGPARKSLK	LWGTEDVAOD LTGWADVSGV LRGWDSVDRE	IAEME glut2 IQEMK glut3 LAELK glut4 VAEIR glut5
DESRXMXSEKXVSVL	ELFRSRXYRQ	PVIIA Majority
340	350	360
		AVIVA glut2 PIIIS glut3 PLIIA glut4 QLLSI glut5

FIG. 3B

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Figure 3C of 4

IVLQLSQQLSGINAVFY		Majority
370	380 390	
167 V V L Q L S Q Q L S G I N A V F Y 320 L M V Q I S Q Q F S G I N A I F Y 274 I M L Q L S Q Q L S G I N A V F Y 292 V V L O I S Q Q L S G I N A V F Y 282 I V L M G G O Q L S G V N A I Y 321 I V T M A C Y O I C G L N A I W F	Y S T N I F Q R A G V G O Y S T G I F K D A G V Q E Y S T S I F F T A G V G O Y A D O T Y L S - G V P E	glut2-pro
PVYATIGAGVVNTVF	TVVSVFVVERAGR	Majority
400	410 420	-
197 P V Y A T I G S G I V N T A F 350 P V Y A T I G V G V V N T V F 304 P V Y A T I G A G V V N T I F 322 P A Y A T I G A G V V N T V F 312 E H V Q Y V T A G T G A V N V V M 351 A K I P Y V T L S T G G I E T L A	TVVSLFVVERAGR TVICVFLVEKAGR TVVSVFLVERAGR	glut1-pro glut2-pro glut3-pro
RTLHLLGLGGMAGCAVL	MTIALALLDQVPW	Majority
430	440 450)
225 RTLHLIGLAGMAGCAVL 378 RSLFLAGLMGMLISAVA 332 RTLHLIGLGGMAFCSIL 350 RTLHLLGLAGMCGCAIL 342 RLLLLLGFSICLIACCV 381 RPLLIGGFGLMGLFFGT	M T V G L V L L S Q F A W M T I S L L L K D N Y S W M T V A L L L L E R V P A L T A A L A L Q D T V S W	glut2-pro glut3-pro glut4-pro glut5-pro
MSYVSIVAIFGFVAFFE	VGPGPIPWFIVAE	Majority
460	470 480	
	V G P G P I P W F I V A E I G P G P I P W F I V A E I G P G P I P W F I V A E	glut2-pro glut3-pro
LFSQGPRPAAIAVAGFS	NWTSNFIVGLLFQ	Majority
490	500 510	
285 LFSQGPRPAAIAVAGFS 438 LFSQGPRPAAIAVAGFC 392 LFGQGPRPAAMAVAGCS 410 LFSQGPRPAAMAVAGCS 402 IFLQSSRPSAFMVGGSV 441 FFQQSQPPAAFIIAGTV	NWTSNELVGLIED	glut2-pro glut3-pro
Y I A E L L G P Y V F I V F A V L	LLLFFIFTFLKVP	Majority
520	530 540	
468 Y L A D I C G P Y V F V V F A V I, 422 S A T F Y I G A Y V F I V F T V F 440 Y V A E A M G P Y V F L L F A V I, 432 F I Q E G L G P Y S F I V F A V I (LVIEWVFTFFKVP	glut2-pro glut3-pro glut4-pro glut5-pro
	FIG 2C	TIME 2/0/30

FIG. 3C